

SHALASHOV, F.V.; TISHCHENKO, G.D., inzh. po ratsionalizatsii

Processing of telegrams using an automatic concentrator. Vest.
sviazi 23 no.12:16-17 D '63. (MIRA 17:2)

1. Glavnyy inzh. Kiyevskogo tsentral'nogo telegrafa (for Shalashov).

SHALASHOV, K. P.

MOYSTUS, N.V.; SHALASHOV, K.P.

A.A.Voznesenskiy's machine. Kauch.i rez. 16 no.4:30-31 Ap '57.
(MIRA 10:7)

1. Yaroslavskiy shinnyy zavod.
(Grinding machines)

MOYSTUS, N.V.; SHALASHOV, K.P.

Continuous production line for rubber heels. Kauch. i rez. 16
no.11:28-30 N '57. (MIRA 11:2)

(Shoe machinery)

SHALASHOV, N.Ya. (Gor'kiy)

State of the upper respiratory tracts and the auditory analyzer in workers of the Flour Milling Plant. Gig. truda i prof. zab. 6 no.5: 50-52 My'63. (MIRA 16:8)

1. Institut gigiyeny truda i professional'nykh bolezney, Gor'kiy.

(RESPIRATORY ORGANS--DISEASES) (EARS--DISEASES)
(GORKIY--GRAIN MILLING--HYGIENIC ASPECTS)

STAN. 1 INSTR.

Hearing

Pneumatic and hydraulic drives for machine tool equipment, Stan. 1 instr.
23 No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED

SHALASHOV, P.G., inzhener.

Pneumohydraulic clutch mechanisms for machine-tool attachments.
[Izd] LONITOMASH 25:5-27 '52. (MLRA 8:2)
(Clutches (Machinery))

SHALASHOV

25(7)

PHASE I BOOK EXPLOITATION

SOV/2454

Vlaznev, Yevgeniy Ivanovich, Sergey Vasil'yevich Podgornov, Valeriy Mikhaylovich Chernyshev, and Petr Gavrilovich Shelashov

Normalizovannyye stanochnyye prispособleniya; spravochnik konstruktora
(Standard Machine Tool Fixtures; Designer's Manual) Moscow, Oborongiz,
1959. 439 p. 12,000 copies printed.

Reviewer: Kh.L. Bolotin, Candidate of Technical Sciences; Ed.: V.V.
Kuz'min, Engineer; Ed. of Publishing House: I.A. Suvorova; Tech. Ed.:
N.A. Pukhlikova.

PURPOSE: This manual is intended for designers of machine tool fixtures and
engineers and technicians. It may also be useful to students of machinery-
construction vuzes and tekhnikums.

COVERAGE: The manual presents data on the standard structural design of ma-
chine tool fixtures. Reference material, materials used in manufacturing
fixture components, standard types of fixture components, basic elements of
fixture components, standard fixtures, hydraulic and air-operated actuating

Card-1/13

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86-00513R001548410015-

VLAZNEV, Yevgeniy Ivanovich; PODGORNOV, Sergey Vasil'yevich; CHERNYSHEV, Valeriy Mikhaylovich; SHALASHOV, Petr Gavrilovich; GLIKMAN, G.S., inzh., retsenzent; BOGOMOLOVA, M.F., red.izd-va; PUKHLIKOVA, N.A., tekhn. red.

[Standardized machine-tool attachments] Normalizovannye stanochnye prispособleniia; spravochnik konstruktora. Izd.2. perer. i dop. Moskva, Oborongiz, 1963. 504 p. (MIRA 16:4)
(Machine tools--Attachments)

LOBOV, B.; SHALASHOV, V.; YEROFEYEV, N.

Three years have passed. Okhr. truda i sots. strakh. 5 no.8:14-15
Ag '62. (MIRA 15:7)

1. Zamestitel' nachal'nika kuznechnogo tsekha moskovskogo zavoda imeni
Likhacheva. (for Lobov). 2. Predsedatel' komissii okhrany truda
1-go moskovskogo chasovogo zavoda (for Shalashov). 3. Predsedatel'
komissii okhrany truda fabrichnogo komiteta i-y moskovskoy
sittsenabivnoy fabрики (for Yerofeyev).
(Moscow--Industrial hygiene)

AUTHOR: Shalashov, V.A., Engineer SOV/28-58-6-3/34

TITLE: The Tasks of the All-Union Scientific Research Institute of Normalization in Machine Building (Zadachi Vsesoyuznogo nauchno-issledovatel'skogo instituta po normalizatsii v mashinostroyenii)

PERIODICAL: Standartizatsiya, 1958, Nr 6, pp 15-17 (USSR)

ABSTRACT: Mass production makes standardization of machine parts necessary. In the former ministry of apparatus manufacture more than 4,000 different cylindrical cog wheels were used in production. In 15 Leningrad machine building plants more than 600 types of springs are still used. In various sovnarkhozes there are 10 to 15 different systems of standard specifications. The All-Union Scientific Research Institute for Normalization in Machine Building (VNIINMASH) has been organized under the Committee of Standards, Measures and Measuring Devices, in order to develop state standards and instructions for their application. The work of all scientific and designing organiza-

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5(4),21(8)

AUTHORS:

Pronman, I. M., Shalashov, V. A.,
Breger, A. Kh., Zubov, Yu. A.

SOV/20-127-6-32/51

TITLE:

Decomposition of the Carbide Phase of White Cast Iron-Cementite
Under the Action of Neutron Radiation

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 6, pp 1259-1262
(USSR)

ABSTRACT:

The small number of papers written about phase conversions of metals and alloys under the action of neutron radiation is pointed out in the beginning (Refs 1-8). In order to study the above-mentioned process white cupola furnace-cast iron was used, from which cementite was extracted in form of a carbide sediment by electrolysis. The analysis of the initial material made under the management of N. M. Popova is given in table 1. Aluminum containers were placed for irradiation in the active zone of a nuclear reactor (concentrated uranium and ordinary water) with a total neutron flux of 10^{12} neutrons per $\text{cm}^2\cdot\text{sec}$. The thermal neutrons were absorbed by an 1 mm thick Cd-filter. The amount of the flux of the 1 Mev fast neutrons was $1-5 \cdot 10^{10}$ neutrons per $\text{cm}^2\cdot\text{sec}$, and therefore the

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Decomposition of the Carbide Phase of White Cast
Iron-Cementite Under the Action of Neutron Radiation

SOV/20-127-6-32/51

total dosage was $0.2-1.10^{16}$ neutrons per cm^2 for 50 hours of irradiation. The irradiated and the non-irradiated cementite samples were examined by X-ray analysis (Ionization apparatus type URS-50-I, Fe-K-radiation). The irradiated sample showed all lines of the cementite and the most intensive line of graphite (002) as well as lines of Fe_3O_4 (311) with low intensity. After annealing there were no changes observed for the non-irradiated sample while remarkable phase conversions were indicated by the X-ray analysis of the irradiated sample (Fig 2). Table 2 and figure 1 show the phase conversion of Fe_3C dependent on the annealing temperature. The irradiated cementite already deposits almost $2/3$ of its iron at only 650° . This decomposition of Fe_3C is caused by centers of crystallization formed by irradiation. α -iron crystallizes at annealing temperatures below the austenite range, and γ -iron at temperatures of the austenite range. Carbon crystallizes in graphite only at temperatures above 1000° . The irradiation dosage applied was insufficient to form adequately active

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- Decomposition of the Carbide Phase of White Cast Iron-Cementite Under the Action of Neutron Radiation SOV/20-127-6-32/51

centers of graphite crystallization. The authors thank V. A. Kargin, Academician, and A. A. Zhukhovitskiy, Professor, for his judgment of the paper under review. There are 2 figures, 2 tables, and 14 references, 8 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut po normalizatsii v mashinostroyenii (All-Union Scientific Research Institute of Standardization of Mechanical Engineering)
Fiziko-khimicheskiy nauchno-issledovatel'skiy institut im. L. Ya. Karpova (Scientific Research Institute of Physical Chemistry imeni L. Ya. Karpov)

PRESENTED: April 10, 1959, by V. A. Kargin, Academician

SUBMITTED: April 9, 1959

Card 3/3

S/020/60/133/04/19/031
B019/B060

AUTHORS: Pronman, I. M., Shalashov, V. A., Breger, A. Kh.
TITLE: The Influence of an Electron Irradiation Upon the Decomposition of Cementite and the Graphitization of White Cast Iron ✓
PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 4, pp. 825-828

TEXT: The authors report here on attempts made to study the influence of electron irradiation on the graphitization of white cast iron and the decomposition of cementite, which represents a metastable phase of white cast iron. The structure of industrial cast iron samples consisted of cementite, ledeburite, and perlite. The temperature of the samples was measured with Pt-PtRh thermocouples, and the energy of the electrons was about 1.7 Mev. Fig.3 shows the variation in hardness of irradiated and nonirradiated samples, annealed at 700°C, from which the effect of electron irradiation upon graphitization can be seen. Experiments made with irradiation of pure cementite prepared with the help of N. M. Popova, in vacuo at a temperature of 600 - 620°C, revealed that cementite is

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The Influence of an Electron Irradiation Upon S/020/60/133/04/19/031
the Decomposition of Cementite and the Graphitiza- B019/B060
tion of White Cast Iron

decomposed to form graphite. Fig. 4 shows an X-ray picture of irradiated cementite. From the fact that cementite irradiated by electrons is chiefly decomposed by their ionizing action, the authors draw the conclusion that iron and carbon atoms in the cementite lattice possess an ion bond. The authors believe that the same effects are bound to arise on a sufficiently strong γ -irradiation. The authors thank Professor Zhukhovitskiy for his discussion of the results. Ye. Ya. Rozinskiy is mentioned. There are 4 figures, 1 table, and 16 references: 11 Soviet, 1 British, 3 US, and 1 German. ✓

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy imeni A. A. Baykov of the Academy
of Sciences, USSR). Fiziko-tekhnicheskiy institut im. L. Ya.
Karpova (Physicotechnical Institute imeni L. Ya. Karpov)

PRESENTED: January 19, 1960, by G. V. Kurdyumov, Academician

SUBMITTED: January 18, 1960

Card 2/2

SHALASHOV, V. A.

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PHASE I BOOK EXPLOITATION

SOV/6176

Konobeyevskiy, S. T., Corresponding Member, Academy of Sciences
USSR, Resp. Ed.

Deystviye vadernykh izlucheniy na materialy (The Effect of
Nuclear Radiation on Materials). Moscow, Izd-vo AN SSSR,
1962. 383 p. Errata slip inserted. 4000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk; Otdeleniye fiziko-matematicheskikh nauk.

Resp. Ed.: S. T. Konobeyevskiy; Deputy Resp. Ed.: S. A. Adasinskiy; Editorial Board: P. L. Gruzin, G. V. Kurdyumov, B. M. Levitskiy, V. S. Lyashenko (Deceased), Yu. A. Martynyuk, Yu. I. Pokrovskiy, and N. F. Pravdyuk; Ed. of Publishing House: M. G. Makarenko; Tech. Eds: T. V. Polyakova and I. N. Dorokhina.

Card 1/14

9C

SOV/6176

The Effect of Nuclear Radiation (Cont.)

PURPOSE: This book is intended for personnel concerned with nuclear materials.

COVERAGE: This is a collection of papers presented at the Moscow Conference on the Effect of Nuclear Radiation on Materials, held December 6-10, 1960. The material reflects certain trends in the work being conducted in the Soviet scientific research organization. Some of the papers are devoted to the experimental study of the effect of neutron irradiation on reactor materials (steel, ferrous alloys, molybdenum, avial, graphite, and nichromes). Others deal with the theory of neutron irradiation effects (physico-chemical transformations, relaxation of internal stresses, internal friction) and changes in the structure and properties of various crystals. Special attention is given to the effect of intense γ -radiation on the electrical, magnetic, and optical properties of metals, dielectrics, and semiconductors.

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The Effect of Nuclear Radiation (Cont.)

SOV/6176

Lyashenko, V. S. (Deceased), and Sh. Sh. Ibragimov. Effect of Neutron Field on Structure and Properties of Steels 74
The specimens were irradiated in the fast reactor BR-5 with a neutron flux of $1.9 \cdot 10^{20}$ n/cm² at temperatures from 150 to 220° [C?].

Pronman, I. M., V. A. Shalashov, and A. Kh. Breger. Decomposition of Carbide Phase in Iron-Carbide Alloys and Phase Transformation in White Cast Iron Under Nuclear Irradiation 81

Petrov, P. A., I. V. Batenin, A. N. Rudenko, and B. V. Sharov. Investigation of Properties of Avial Subjected to Nuclear Radiation in a Reactor 100

Platonov, P. A. Stress Relaxation in Metals Under Neutron Irradiation, Recovery, and Annealing of Radiation Defects 106

Specimens were irradiated at -150°C by fast neutron fluxes ($E > 1$ mev) of $2 \cdot 10^{18}$ and $4 \cdot 10^{18}$ n/cm² in the RPT Reactor.

Card 6/14

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SHALASHOV, V.A. (Moskva); ZHUKOV, A.A., rukovoditel' raboty

Chromium distribution among phases of hypoeutectic cast iron.
Izv. AN SSSR. Otd. tekhn. nauk. Met. i gor. delo no.4:121-126
Jl-Ag '63. (MIRA 16:10)

SHALASHOV, V.A.

Irradiation and heat treatment of chromous white cast iron.
Metalloved. i term. obr. met. no.11:31-34 N '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i
legkogo mashinostroyeniya.

ZHUKOV, A.A.; SHALASHOV, V.A.

Residual carbides in malleable chromium cast iron. Izv. vys. ucheb.
zav.; chern. met. 7 no.3:154-160 '64. (MIRA 17:4)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. N.E.Baumana
i Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i
legkogo mashinostroyeniya.

ACCESSION NR: AP4019527

S/0076/64/038/002/0485/0488

AUTHOR: Shalashov, V. A.

TITLE: Concerning the influence of preliminary irradiation on the structure and thermal decay of cementite

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 2, 1964, 485-488

TOPIC TAGS: cementite irradiation, cementite breakdown, cementite iron carbide, Compton effect, Fe C bond

ABSTRACT: This work was prompted by the general interest concerning the influence of preliminary irradiation on the decomposition of chemical compounds. The author concentrated his study on iron carbide (cementite) which was extracted from white cast iron. It had a content of 7.1% C, 0.39% Si, 0.51% Mn, and 0.19% Cr. The rest was iron. The irradiation of cementite with gamma quanta, causing interior beta-radiation (Compton effect) results in lowered intensity of reflections on radiograms, especially when combining radiation with heat treat-

Card 1/2

SHALASHOV, V.A.; Prinimall uchastiyet: BREGER, A.Kh.; ZHUKOV, A.A.; GOL'DIN,
V.A.; TOMAS, V.K.

Effect of irradiation on the structure and tendency to thermal
decomposition of chromium cementite. Zhur.fiz.khim. 38 no.11:
2735-2737 N '64. (MIRA 18:2)

CHITANOV, V.S.

Effect of preliminary irradiation and heat treatment on the
graphitization of malleable cast iron. Lit. proizv. no.2:
25-26 F '65. (MIRA 12:6)

ZHUKOV, A.A., kand.tekhn.nauk; SHALASHOV, V.A., inzh.; TOMAS, V.K., inzh.

The structure of cerentite. Lit. proizv. no.7:46 J1 '65. (MIRA 18:8)

L 10798-66 EWP(e)/EWF(m)/EPE(n)-2/EWA(d)/T/EWP(t)/EWP(z)/EWP(h)/EWA(h)/EWA(c).
 ACC NR: AT5023786 JD/WW/GG/GS/WH SOURCE CODE: UR/0000/62/000/000/0081/0099

AUTHOR: Pronman, I. M.; Shalashov, V. A.; Breger, A. Kh.

ORG: none

TITLE: Decomposition of the carbide phase of iron-carbon alloys and the phase transformations in white cast iron under the action of nuclear irradiations

SOURCE: Soveshchaniye po probleme Deystviye yadernykh izlucheniya na materialy. Moscow, 1960. Deystviye yadernykh izlucheniya na materialy (The effect of nuclear radiation on materials); doklady soveshchaniya. Moscow, Izd-vo AN SSSR, 1962, 81-99

TOPIC TAGS: white cast iron, cementite, cast iron neutron irradiation, cementite neutron irradiation, cast iron electron irradiation, cementite electron irradiation, cementite gamma irradiation

ABSTRACT: White cast iron containing about 45% cementite (Fe_3C) and pure cementite electrolytically precipitated from white cast iron were irradiated with a neutron flux of 10^{12} n/cm²·sec, fast electrons, and gamma rays and vacuum annealed at a temperature varying from 650—1050C. The neutron irradiation dose for cementite and cast iron was $0.2-5 \times 10^{16}$ n/cm² and the irradiation temperature did not exceed 65C. Prolonged high-temperature annealing produced no structural changes in unirradiated cementite, but in irradiated cementite, annealing at lower temperatures for a shorter time resulted in a phase transformation. For example, annealing for 2 hours at 650C, i.e., below the austenitic transformation temperature, led to an

Card 1/3

L 10798-66

ACC NR: AT5023786

SUB CODE: 13, 20 SUBM DATE: 18Aug62/ ORIG REF: 015/ OTH REF: 004

BC
Card 3/3

Shalashov, I. A.; Finkel'shteyn, I. A., staryiy nauchnyy sotrudnik;
Volkov, A. B.

Oil-lubricating rings of spinning machines made from metallic
ceramics. Tekst. proc. of no. 7:63-67 J1 '65. (KIRA 18:6)

1. Il'ya Stepanovich Vsesoyuznyy mashino-issledovatel'skogo instituta legkogo i tekstil'nogo mashinostroyeniya, Moskva (for Shalashov).
2. Vsesoyuznyy mashino-issledovatel'skiy institut legkogo i tekstil'nogo mashinostroyeniya, Moskva (for Finkel'shteyn).
3. Nauchnyy laboratoriya tekhnologiy mashinostroyeniya Vsesoyuznyy mashino-issledovatel'skogo instituta legkogo i tekstil'nogo mashinostroyeniya, Moskva (for Volkov).

L 07828-67 FWT(1)/FWP(c)/FWT(m)/FEC(k)-2/WWP(1)/WWP(1)/WTI/WWP(k) IJP(c) WG/JD/
ACC NR: AP6034022 WW/RH/WH SOURCE CODE: UK/0122/667000/010/0054/0056

AUTHOR: Zhukov, A. A. (Candidate of technical sciences); Lisovskiy, L. P. (Candidate of technical sciences); Kokora, A. N. (Engineer); Shalashov, V. A. (Engineer); Chel'nyy, A. A. (Engineer)

ORG: none

TITLE: Making holes in spinnerettes for synthetic filament using an optical quantum generator (laser)

SOURCE: Vestnik mashinostroyeniya, no. 10, 1966, 54-56

TOPIC TAGS: steel, spinnerette, filament drawing spinnerette, spinnerette hole drilling, laser application, textile industry machinery, laser hole drilling, laser / OKh23N28M3D3T steel

ABSTRACT: The Scientific Research Institute of Light Textile Machinery has investigated the possibility of using lasers in making holes in filament-drawing spinnerettes. A ruby laser with a 0.7 j maximum radiation energy was used for making holes in OKh23N28M3D3T steel spinnerettes. It was found possible to make holes of almost cylindrical shape and with a conical entrance if desired. The hardness of the heat-affected zone did not undergo any substantial changes. Finished experimental spinnerettes with up to 40 holes were tested at the Kalinin Synthetic Fiber Plant, which found that the quality of filament

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UDC: 621.95.048

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; LENSKIY, B.V.; AVSENEV, Yu.M.; KISVIANTSEV,
L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; ZYKOV, A.A.; SENIN, V.P.;
NETRUSOV, A.A.; GAVRILOV, V.V.; NIKOLAYENKO, Zh.I.; VOLKOV, H.V.;
KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.; KARSHINOV, L.N.;
YAKIMOVA, T.A.; SHALASHOV, V.P.; KOSONOGOV, L.A.; PUSENKOV, N.N.;
LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development in the people's democracies; survey for 1958]
Razvitie ekonomiki stran narodnoi demokratii; obzor za 1958 g. Pod
red.M.I.Sladkovskogo i dr. Moskva, Izd-vo sotsial'no-ekon.lit-ry,
1959. 358 p. (MIRA 13:7)

1. Moscow. Nauchno-issledovatel'skiy kon'yunkturnyy institut.
(Communist countries--Economic conditions)

ZOLOTAREV, V.I.; PEKSHEV, Yu.A.; LENSKIY, B.V.; AVSEMEV, Yu.M.;
KISVYANTSEV, L.A.; SHVETSOV, N.I.; TELEGIN, Ya.I.; ZYKOV, A.A.;
SENIN, V.P.; METRUSOV, A.A.; GAVRILOV, V.V.; NIKOLAYENKO, Zh.I.;
VOLKOV, N.V.; KALASHNIKOV, A.A.; PLAKSIN, S.V.; POPOV, N.N.;
KARSHINOV, L.N.; YAKIMOVA, T.A.; SHALASHOV, V.P.; KOSONOGOV, L.A.;
PUSENKOV, N.N.; SLADKOVSKIY, M.I., red.; IVANOV, N.I., red.;
LEPNIKOVA, Ye., red.; MOSKVINA, R., tekhn.red.

[Economic development in the people's democracies; review for
1958] Razvitie ekonomiki stran narodnoi demokratii; obzor za
1958 g. Pod red. M.I.Sladkovskogo i dr. Moskva, Izd-vo sotsial'-
no-ekon.lit-ry, 1959. 358 p. (MIRA 13:7)

1. Moscow. Nauchno-issledovatel'skiy kon'yunkturnyy institut.
(Communist countries--Economic conditions)

PEKSHEV, Yu. A.; LENSKIY, B. V.; AVSENOV, Yu. M.; MILONOV, V. S.; KISVYANTSEV, L. A.; TELEGIN, Ya. I.; POZDNEV, V. I.; NETRUSOV, A. A.; ZYKOV, A. A.; KUDIN, B. M.; MAKSIMOVA, A. P.; NIKOLAYENKO, Zh. I.; VOLKOV, N. V.; SHVETSOV, N. I.; PLAKSIN, S. V.; POPOV, N. N.; KARSHINOV, L. N.; YAKIMOVA, T. A.; SHALASHOV, V. P.; VISYANIN, Yu. L.; KRASNOV, L. V.; PUSENKOV, N. N.; IVANOV, N. I., red.; ZOLOTAREV, V. I., red.; SLADKOVSKIY, M. I., red.; LEFNIKOVA, Ye., red.; KOROLEVA, A., mladshiy red.; NOGINA, N., tekhn. red.

[Economic development of the people's democracies; survey for 1959]
Razvitie ekonomiki stran narodnoi demokratii; obzor za 1959 god. Pod
red. N. I. Ivanova i dr. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1960.
305 p. (MIRA 14:6)

1. Moscow. Nauchno-issledovatel'skiy kon'yuktornyiy institut.
(Europe, Eastern--Economic conditions)

YAVORSKIY, Vladislav [Yaworski, Wladyslaw]; REUTT, B. [translator];
SHALASHOV, V.P., kand. ekonom. nauk, red.; BOROZDIN, B.,
~~red.~~; LEBEDEV, A., tekhn. red.

[Credit system of People's Poland] Kreditnaia sistema narodnoi
Pol'shi. Vstup.stat'ia i obshchaia red. V.P.Shalashova. Moskva,
Gosfinizdat, 1961. 126 p. (MIRA 15:1)
(Poland--Credit)

KARPINSKIY, A. [Karpinski, Andrzej]; RAKOVSKIY, M. [Rakowski, Mieczyslaw];
SOKOLOVSKIY, V.I. [translator]; SHALASHOVA, V.P. [translator]; MA-
KARENKO, Ya.I., red.; SHAGALOV, G., red.; KHOMYAKOV, A.D., tekhn.
red.

[Poland against the background of the world economy] Pol'sha na fone
mirovoi ekonomiki. Pod obshchei red. IA.I.Makarenko. Moskva, Izd-vo
inostr. lit-ry, 1961. 221 p. Translated from the Polish. (MIRA 14:11)
(Poland--Economic conditions) (Economic conditions)

NIKIFOROV, L.A.; NIKOLAYENKO, Zh.I.; VOLKOV, N.V.; SHVETSOV, N.I.;
PLAKSIN, S.V.; POPOV, N.N.; PEKSHEV, Yu.A.; KARSHINOV, L.N.;
YAKIMOVA, T.A.; SHALASHOV, V.P.; VASYANIN, Yu.L.; KRASHOV, L.V.;
PUSENKOV, N.N.; VASIL'YEVA, G.N.; TSAGURIYA, G.M., tekhn. red.

[Economic development of the people's democracies of Europe and
Asia; statistical collection] Razvitie ekonomiki stran narodnoi
demokratii Evropy i Azii; statisticheskii sbornik. Moskva,
Vneshtorgizdat, 1961. 470 p. (MIRA 15:5)
(Communist countries--Statistics)

VASYANIN, Yu.; SHALASHOV, V.

Prospects for Poland's foreign trade development. Vnesh. torg.
41 no.6:20-25 '61. (MIRA 1A:7)
(Poland--Economic conditions)
(Poland--Commerce)

I 15580-65 EWG(j)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPF(n)-2/EPR/EWP(b) Pr-4/Ps-4/
Pu-4 WW/DM/WH

ACCESSION NR: AP5009125

S/0089/65/018/003/0282/0284

AUTHOR: Shalashov, Yu. M.

TITLE: Measurement of the slowing down length of neutrons from a Po-Be source in graphite-water lattices

SOURCE: Atomnaya energiya, v. 18, no. 3, 1965, 282-284

TOPIC TAGS: neutron moderation, slowing down length, graphite water lattice, heterogeneous reactor system

ABSTRACT: The slowing down lengths of neutrons from a Po-Be source to the energy of resonance absorption of indium (1.46 eV) were measured in graphite-water heterogeneous systems parallel and perpendicular to the cylinder axis in the presence of a graphite lattice, and also in ordinary water. The distribution of the slowed-down neutrons was measured with indium indicator discs 0.1 mm thick and 10 or 39.5 mm in diameter. The activity was measured by a procedure, proposed by A. I. Mogil'ner, which made it possible to avoid calculations connected with corrections for radioactive decay. The test procedures and the calculations are described.

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L 45580-65

ACCESSION NR: AP5009125

The slowing down length was calculated in the age approximation in accordance with a procedure proposed by V. P. Kochergin and V. V. Orlov (Atomanaya energiya v. 6, 34, 1959). The measured results for pure water were approximately 18% lower than calculated. Various causes of the discrepancies are discussed. "In conclusion the author thanks G. Ya. Aryukhov for valuable advice and hints." Orig. art. has: 1 figure, 2 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 23Mar64

ENCL: 00

SUB CODE: NP

NR REF SOV: 002

OTHER: 005

am
Card 2/2

BARDIN, Yu.; SHALASHOVA, Ye.

Preliminary chlorination at the Stalinsk water-supply station.
Zhil.-kom.khoz. 7 no.12:9-12 '57. (MIRA 11:12)

1. Glavnyy inzhener Stalinskoy vodoprovodnoy stantsii g. Moskvy (for Bardin). 2. Zaveduyushchaya laboratoriyey Stalinskoy vodoprovodnoy stantsii g. Moskvy (for Shalashova).
(Stalinsk--Water--Chlorination)

SHALASHOVA, Yo.S.; KROTKOVA, B.I.

Objective methods for qualitative analysis of water. Vod.1
san.tekh. no.8:18-22 Ag '60. (MIRA 13:7)
(Water--Analysis)

SHALASHOVA, Ye. S.

Using ozone in water purification. Zhil.-kom. khoz. 10 no.5:27-28
'60. (MIRA 13:10)

1. Nachal'nik laboratorii Stalinskoy vodoprovodnoy stantsii,
Moskva.

(Moscow--Water--Ozonization)

SHALACHOVA, Ye.S., inzh.

Monitor the quality of the water in the Eastern water supply
station of Moscow. Vod. i san. tekhn. no.9:12-14 S '64.

(MIRA 17:11)

GABDIN, Yu.A., inzh.; SHALASHOVA, Ye.V., inzh.

Use of basic aluminum chloride for the purification of drinking
water. Vod. i san. tekhn. no.6:27-29 Je '65. (MIPA 12:8)

SHALASHOVA, Z. ¹ P

Knigi zarubezhnykh pisateley XX (i.e. dvadtsatyy)
veka: rekomendatel'nyy ukazatel' (by) A.M.Gorbunov,
M.I. Davydova (i) Z.F. Shalashova. Moskva, 1960.

343 p.

At head of title: Russia (RSFSR) Ministerstvo Kul'-
tury and Moscow. Publichnaya Biblioteka.

MOLCHANOVA, Nina Sergeyevna; CHERNYAK, Aron Yakovlevich; SHALASHOVA,
Zoya Petrovna; VASIL'YEVA, L.P., tekhn. red.

[Soviet people are conquerors of space; survey of recommended literature] Sovetskii narod - pobeditel' kosmosa; rekomendatel'nyi obzor literatury. Moskva, Gos. biblioteka SSSR im. V.I.Lenina, 1961. 28 p. (MIRA 15:7)
(Bibliography--Space flight)

SHALAT, Tibor [Salat, Tibor] (Bratislava, Smeralova 2)

On numbers of distances of linear discontinuities I.
Cas pro pes mat 87 no.1:4-16 '62.

1. Prirodovedecka fakulta Komenskeho university.

LEGEN', Anton [Lsgen, Anton]; SHALAT, Tibor [Salat, Tibor]

Some applications of the method of categories in the theory of sequence spaces. Mat fyz cas SAV 14 no.3:217-233 '64.

1. Chair of Mathematical Analysis of the Faculty of Natural Sciences of the Comenius University, Bratislava, Gottwaldovo namesti 2.

CHERNYSHEV, V.; SHALATOV, A.

New license plates. Za rul. 17 no.2:20-21 F '59.
(Automobiles--Registration)

(MIRA 12:3)

CHERNYSHEV, B., inzh.; SHALATOV, A., inzh.

Preventing the dazzling of drivers. Avt. transp. 37 no.7:45-47
Jl '59. (MIRA 12:10)

(Automobiles--Lighting)

CHEPNYSHEV, B.; SHALATOV, A.

New traffic signs. Za rul. 18 no.5:17 My '60. (MIRA 14:3)
(Traffic signs and signals)

CHERNYSHEV, B., inzh.; SHALATOV, A., inzh.

New highway traffic signs. Avt. transp. 38 no. 5:32-33 My '60.
(MIRA 14:2)

(Traffic signs and signals)

SHUL'TS, V.L.; SHALATOVA, L.I.

Some data on the speed of vertical infiltration of snow water in
the snow pack. Izv. AN Uz.SSR no.1:128-129 '53. (MIRA 11:3)
(Thawing)

SHALATOVA, L. I.

"Glaciers of the Mountainous Region of Central Asia and the Influence of Absolute Height and Orientation Upon Their Thawing." Central Asia U imeni Lenin, Min Higher Education USSR, Tashkent, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: Sum. Nol 556, 24 Jun 55

SHALATOVA, L.I.

Effect of absolute altitude on snowbank thawing in mountain regions
of Central Asia. Izv. Uz.fil.Geog.ob-va 1:45-66 '55.

(MIRA 10:3)

(Soviet Central Asia--Snow) (Thawing)

SHUL'TS, V.L.; SHALATOVA, L.I.

Results of observations on the melting of snowlands in the upper
Chinganka Valley in 1954. Izv. Uzb. fil. Geog. ob-va 2:66-85 '56.
(Soviet Central Asia—Snow) (MIRA 11:4)

SHUL'TS, V.L.; SHALATOVA, L.I.

River system and occurrence of runoff characteristics in the Kashka-
Dar'ya Basin. Trudy SAGU no.80:49-74 '56. (MLRA 10:4)
(Kashka-Dar'ya Valley--Runoff)

SHALATOVA, L. I.

SHUL'TS, V.L.; SHALATOVA, L.I.

Rock slide in the Chon-Kzylsu Valley on July 14, 1956. Izv.Uzb.
fil.geog.ob-va no.3:129-131 '57. (MIRA 11:4)
(Chon-Kzylsu Valley)

SHUL'TS, V.L.; SHALATOVA, L.I.; RUBINOVA, F.E.; CHERTANOV, N.P.

Problems in intensifying the melting of snow. Izv. AN Uz. SSR.

Ser. tekhnauk no.2:63-72 '58.

(MIRA 11:9)

1. Institut vodnykh problem i gidrotekhniki AN UzSSR.
(Snow)

SHUL'TS, V.L.; SHALATOVA, L.I.

Observations on the thawing of small glaciers originating in a
firn during 1955, 1957, and 1958. Trudy Sred.-Az. nauch.-issl.
gidrometeor. inst. no.3:65-87 '60. (MIRA 14:9)
(Soviet Central Asia--Thawing)

SPUL'TS, V.I.; SHALATOVA, I.I.

Hydrographic characteristics of rivers. Trudy TashGU no.185:49-61
'61. (MIRA 14:12)

(Surkhan-Darya Province--Rivers)

SHUL'TS, V.I.; SHALATOVA, L.I.

River regimen. Trudy TashGU no.185:83-92 '61.
(Surkhan-Darya Province--Rivers)

(MIRA 14:12)

SHUL'TS, V.I.; SHALATOVA, L.I.

Distribution of streamflow characteristics in the mountainous part
of the basin. Trudy TashGU no.185:93-107 '61. (MIRA 14:12)
(Surkhan-Darya Province--Rivers)

SHALATOVA, L.I.

Some dates on the natural regulation of the runoff of Central
Asian rivers. Nauch. trudy TashGU no.193:113-130 '62.
(MIRA 16:7)

(Soviet Central Asia--Runoff)

SHUL'TS, V.L.; SHALATOVA, L.I.

Hydrographic characteristics of rivers. Trudy TashGU no.185
Geog. nauki no.21:49-61 '61. (MIRA 16:8)
(Surkhan-Darya Province--Rivers)

SHUL'TS, V.L., SHALATOVA, L.I.

River regime. Trudy TashGU no.185 Geog. nauki no.21:83-92 '61.
(MIRA 16:8)

(Surkhandarya Valley--Runoff)

SHUL'TS, V.L.; SHALATOVA, L.I.

Distribution characteristics of runoff on the territory of the
mountainous part of the basin. Trudy TashGU no.18^s Geog. nauki
no.21:93-107 '61. (MIRA 16:8)
(Gissar Range region—Runoff)

SHALAUROV, V.A.

Investigating the behavior of mine and special supports in
longwalls. Izv.TPI 93:148-157 '58. (MIRA 13:5)
(Mine timbering)

SHALAUROV, V.A.

Settling of the roof without battery stulls in longwalls of flat
contiguous seams. Vop. gor. davl. no.7:48-51 '61.. (MIRA 18:7)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR.

1964 A. I. I.; 1964, Te. A.

Effect of ground movements on the behavior of roof rock in mining
flat seams in the Leninsk region of the Kuznetsk Basin. Trudy Inst.
geol. Gela GIN, otd. AN SSSR no. 5:121-127 '64.

(MIRA 17:11)

BOBER, Ye.A., starshiy prepodavatel'; SHALAUROV, V.A., inzh.

Study of roof displacement during the mining of contiguous flat seams. Izv.vys.ucheb.zav.:gor.zhur. 7 no. 1:31-35 '64. (MIRA 17:5)

1. Kemerovskiy gornyy institut (for Bober). 2. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Shalaurov). Rekomendovana kafedroy razrabotki mestrozheniy poleznykh iskopayemykh Kemerovskogo gornogo instituta.

GRITSKO, G.I.; SHALAUROV, V.A.; KULAKOV, V.N.

Investigating with the use of models the bearing pressure in
mining thick, steeply pitching seams. Fiz.-tekh. probl. razrab.
pol. iskop. no.5:160-162 '65. (MIRA 19:1)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR, Novosibirsk.

SHALAUROVA, A.

Women in commerce. Sov. torg. 35 no.3:3-6 Mr '62. (MIRA 15:3)

1. Sekretar' Tsentral'nogo komiteta profsoyuza rabotnikov gostrogovli
i potrebitel'skoy kooperatsii.
(Women--Employment)

SHALAUROVA, A.

Let's carry out the decisions of the party. Sov. torg. 37 no.11:
1-5 N '63. (MIRA 16:12)

1. Predsedatel' Tsentral'nogo komiteta professional'nogo
soyuza rabotnikov gosudarstvennoy trgovli i potrebitel'skoy
kooperatsii.

KALDERON, Dimitritsa; KOSHARSKA, Tinka; DRUMEV, Bozhidar, inzh.; BOZHINOV, Sava Filipov; KHRISTOV, Ivan Filipov, uchenik; OVANOVA, Mela, prepodavatelka; MILKOV, Vuliu; NIKOLOV, Iordan Georgiev; SHALAVEROV, Zlati Dimitrov; PASKOVA, Stoika Ivanova; PAVLOV, Pavel Iordanov

During the new school year better achievements. Nauka i tekhn. z mladezh no.10:3-4,16 '61.

1. Zav. otdel "Srednoshkolska mladezh" v TSK na DKMS(for Kalderon)
2. Sekretar na zavodskiaa komitet na DKMS v zavod "Stalin", Dimitrovo (for Kosharska)
3. Predsedatel na nauchno-tekhnikeskoto d-vo i nachalnik biuro "Tekhnicheski progress" v zh. p. zavod "G. Dimitrov" Sofiya. (for Drumev)
4. Sekretar na Okruzhniia komitet na DKSM, Plovdiv(for Bozhinov)
5. Selskostopanski tekhnikum v x. Sadovo, Plovdivski okrug (for Khristov, Ivanova)
6. Direktor na MTS s. "Ekzarkh Antimovo" Gurgaski okrug (for Milkov)
7. MTS, Gorna Oryakhovitsa (for Nikolov)
8. Sekretar na Okruzhniia komitet na DKMS, Turnovo(for Shalaverov)
9. Bibliotekarka v s. Rudnik, Varnenski okrug (for Paskova)
10. Sekretar na Okruzhniia komitet na DKMS, Varna (for Pavlov)

(Education)

ACC NR: AT6032068

(N)

SOURCE CODE: UR/3095/66/034/000/0141/0153

AUTHOR: Shalaveyus, A. S.

ORG: none

TITLE: Wind field and tangential stress of wind in the equatorial region of the Atlantic Ocean

SOURCE: AN UkrSSR. Morskoy gidrofizicheskiy institut. Trudy, v. 34, 1966. Tekheniye Lomonosova (Lomonosov Current), 141-153

TOPIC TAGS: wind velocity, anticyclone

ABSTRACT: The general character of the wind field and tangential stress in the equatorial region of the Atlantic Ocean in winter and summer is studied by the use of ship observations, which are averaged by gradients of 1° width and 5° length. The tangential stress of the wind, τ , calculated by the formula $\tau = c_p W^2$; the components τ_x and τ_y are calculated similarly: $\tau_x = c_p W W_x$, $\tau_y = c_p W W_y$. The region is characterized by an area of reduced pressure and the equatorial hollow found between two stationary subtropical anticyclones, on whose peripheries zones of trade winds are found. The equatorial hollow, the low pressure centers on the Brazilian and African coasts, and the zones of trade winds shift to the north in the summer. In the winter, minimum val-

Card 1/2

ACC NR: AT6032068

ues of τ (less than 0.25-0.5 dynes/cm²) and τ_x (less than 0.25 dynes/cm²) are found in the equatorial hollow. Maximum values of τ (1.0-2.5 dynes/cm²), τ_x (2.0 dynes/cm²), and τ_y (1.5 dynes/cm²) are found in the zone of the southeast trade winds. Intermediate values of τ (0.5 to 1.5, increasing east to west) are found in the zone of the northeast trade winds. In general, τ , τ_x , and τ_y show much less variation than in summer. In the summer, the most notable feature is a narrow strip of weak winds lying along the equator. Minimum values of τ (less than 0.25 dynes/cm²), τ_x , and τ_y are located in this strip. Minimum values of τ_x are also found in a low pressure center, 5° to 9° N. In the zone of the southeast trade winds, τ increases from 1.0 dynes/cm² in the east to 2.5 dynes/cm² in the west; maximum values of τ_x , greater than 3.0 dynes/cm², are also found here. The variation of τ_y is much larger than in winter, the values ranging from less than 0.25 dynes/cm² to greater than 2.0 dynes/cm². The direction of τ_x and τ_y is similar for both seasons. τ_x is directed to the east along the African coast and to the west elsewhere; τ_y is directed to the south, north of the axis of the equatorial hollow, and to the north, south of it. Orig. art. has: 2 tables, 5 figures.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 005

Card 2/2

L 08736-67

ACC NR: AL7001677

there are individual zones of westerly components of transfer of air masses which persist a short time and are situated near the principal regions of westerly flow. In the tropical Atlantic, as in the Pacific, there therefore is a stratification of zonal flows in the troposphere and lower stratosphere with a dominance of a three- or two-layered system. In the lower troposphere there usually is a dominance of easterly transfer of air masses. In the middle and upper troposphere there sometimes is a continuous layer with westerly components connecting the westerly flows of the two hemispheres. It is probable that as in other equatorial regions there is a two-year periodicity in alternation of westerly and easterly flow in the lower stratosphere.

Orig. art. has: 3 figures. [JPRS: 38,230]

SUB CODE: 04 / SUBM DATE: 07Jan66 / ORIG REF: 006 / OTH REF: 006

Card 2/2 bc

SHALAVIN, A. I., kand.sel'skokhozyaystvennykh nauk

Protecting winter crops from unfavorable wintering conditions.
Zemledelie 8 no.8:41-44 Ag '60. (MIRA 13:8)

1. Inskpektor Goskomissii po sortoispytaniya soi v Udmurtskoy
ASSR.

(Udmurt A.S.S.R.--Wheat)

SHALAVIN, A.I., kand.sel'skokhoz.nauk

Protection of winter crops against sclerotinia. Zashch. rast.
ot vred. i bol. 5 no.9:23-24 S '60. (MIRA 15:6)

1. Inspektor Gosudarstvennoy komissii po sortoispytaniyu,
g. Izhevsk.

(Udmurt A. S. S. R.--Sclerotinia)
(Grain--Diseases and pests)
(Mercury compounds)

Shalavina, I. F.

7
3
6
Chem
Synthesis of amino dicarboxylic acids of aliphatic series from thiophene. Ya. L. Gol'dfarb, B. P. Fabrichny, and I. F. Shalavina (N. D. Zelinski Inst. Org. Chem., Moscow). *Izv. Akad. Nauk S.S.S.R., Otd. Khim. Nauk* 1956, 1276-8; cf. C.A. 49, 8244b. — Hydrogenolysis (cf. above ref. for technique) of 2,5-[HO₂CCH(NH₂)](HO₂CCH₂CH₂CH₂)C₆H₄S gave 83% α-aminosuccinic acid, decomp. 233-4°; p-tosylate, m. 94-5°; HCl salt, m. 156-8°. The starting material decomp. 191° (p-tosylate, m. 132-3°). Similarly, 2,5-[HO₂CCH(NH₂)](HO₂CCH₂CH₂CH₂CH₂)C₆H₄S decomp. 175° (p-tosylate, m. 127-8°); on hydrogenolysis it gave α-amino-1,9-nonanedicarboxylic acid, decomp. 226-8°; HCl salt, m. 149-51°. Acylation by the usual method of 2-(EtO₂CCH₂CH₂CH₂)C₆H₄S with ClCO(CH₂)₄CO₂Me in C₆H₆ with SnCl₄ catalyst gave 93% 2,5-[MeO₂C(CH₂)₄CO]-[EtO₂C(CH₂)₄]C₆H₄S, which after alk. sapon. to the dicarboxylic acid (93% yield), was converted to the oxime in 95% yield and hydrogenated over Raney Ni in 5% NH₄OH by stirring with the catalyst at 75-80° to β-aminobutyric acid

(I) mixed with its lactam, HO₂C(CH₂)₄CH₂CH₂CH₂CH₂CO.NH, m. 140-1.5°, the latter being obtained pure after reprecip. from NaOH with AcOH; the lactam refluxed in either pure state or mixed with the open chain form, with concd. HCl readily gave I.HCl, m. 143-5°, which with NH₄OH gave free I, m. 130.5-40° (p-tosylate, m. 114-15°).
G. M. Kosolapoff

SHALAVINA, I. F.

Chem ✓ Synthesis of amino acids of aliphatic series from thiophene derivatives. I. Synthesis of α -amino acids. Ya. L. Gol'dfarb, B. P. Fabrichnyi, and I. F. Shalavina (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Zhur. Obshch. Khim.* 26, 2595-602 (1956).—To 17.2 g. KCN in 30 ml. H_2O was added 15.5 g. NH_4Cl in 40 ml. H_2O , and 32.0 g. 5-methylthiophene-2-carboxaldehyde in 130 ml. $MeOH$ and 40 ml. concd. NH_4OH ; after shaking 4 hrs. the mixt., contg. a dark oil, was dild. with H_2O , extd. with C_6H_6 , the org. layer washed with H_2O and 1:1 HCl , H_2O , $NaHCO_3$, and H_2O . Distn. gave 2.2 g. unreacted aldehyde. The aq. HCl ext. was refluxed 4 hrs. and concd. in vacuo (some unreacted aldehyde was recovered) and the residue after treatment with C was evapd. yielding *dl*- α -amino(5-methyl-2-thienyl)acetic acid HCl salt and NH_4Cl ; this treated with aq. $Cu(OAc)_2$ gave 49.2% Cu salt, which treated with H_2S , filtered and evapd. gave 41.6% free amino acid (I), decomp. 199-200° (from dill. $EtOH$); HCl salt, m. 182-3°. *p*-toluene-

sulfonyl deriv., decomp. 176-7°. Similarly, 5-ethylthiophene-2-carboxaldehyde gave *dl*- α -amino(5-ethyl-2-thienyl)acetic acid (II), decomp. 213°; *p*-toluenesulfonyl deriv., m. 172-3°. Thiophene-2-carboxaldehyde gave *dl*- α -amino-2-thienylacetic acid (III), decomp. 223-4° (*p*-toluenesulfonyl deriv., m. 159-60°). Reduction of 2-thienylglyoxalic acid oxime with $Sn-HCl$ gave a low yield of *dl*- α -amino-2-thienylacetic acid, identical with the above. 2,5-Dimethyl-3-thiophenecarboxaldehyde gave *dl*- α -amino(2,5-dimethyl-3-thienyl)acetic acid (IV), decomp. 203-4° (*p*-toluenesulfonyl deriv., decomp. 172-3°). 5-*tert*-Butyl-2-thiophenecarboxaldehyde gave *dl*- α -amino(5-*tert*-butyl-2-thienyl)acetic acid, 1/2

Gol'dfarb, Ya. L., Fabrichnyi, B.P. ...
 decomp. 186-7° (*p*-toluenesulfonyl deriv., m. 159.5-60.5°);
 a by-product was 5-*tert*-butyl-2-thienylamine HCl salt, m.
 229-30°; picrate, m. 185-6°. Refluxing 2 g. I with 0.7 g.
 Na₂CO₃ in 100 ml. H₂O with 9 g. Raney Ni 1 hr. gave, after
 the usual purification through the Cu salt, 53% *dl*-α-amino-
 enanthic acid, decomp. 279-80°; benzoyl deriv., m. 133-4°.
 II gave 41% *dl*-α-aminocaproic acid, decomp. 270-1° (ben-
 zoyl deriv., m. 125-8°); III gave 69% *dl*-α-aminocaproic
 acid, decomp. 275-7° (benzoyl deriv., m. 132°); IV gave
 51% *dl*-α-amino-β-ethylcaproic acid, decomp. 244-6° (*p*-
 toluenesulfonyl deriv., m. 105.5-7°). Oxime of α-thienyl-
 glyoxalic acid (cf. Gol'dfarb, and Fabrichnyi, C.A. 49,
 8244b) (3 g.) in 50 ml. H₂O, with 1.3 g. Na₂CO₃ and 20 ml.
 concd. NH₄OH was stirred with 15 g. Raney Ni at 70-5° 2
 hrs. yielding after the usual treatment through the Cu salt,
 60% *dl*-α-aminocaproic acid, decomp. 273-4°; benzoyl deriv.,
 m. 132°, identical with above described specimen.

C. M. Kosolapoff

2/2

GOL'DFARB, Ya.L.; FAHRICHNYY, B.P.; SHALAVINA, I.F.

New general method of preparing aliphatic aminoacids. Dokl. AN SSSR
109 no.2:305-308 J1 '56. (MLRA 9:10)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii
nauk SSSR. Predstavleno akademikom A.A. Balandinym.
(Amino acids)

SHALAVINA, I.F.

AUTHORS: Gol'dfarb, Ya. L., Fabrichnyy, B. P., Shalavina, I.F., 62-1-17/29

TITLE: On the Synthesis of the β -(2-thienyl) Alanine (O sinteze β -(2-tienil) alanina)

PERIODICAL: Izvestiya AN SSSR, Otdeleniye Khimicheskikh Nauk, 1958
Nr 1, pp. 98 - 100 (USSR)

ABSTRACT: The data published of late prove that β -(2-tienyl) alanine has an extensive biological activity. In connection here with a series of papers was published which dealt with the synthesis of the β -(2-tienyl) alanine. Crowe and Nord (reference 4) obtained this aminoacid by exploiting the reaction of the 2-thiophenylaldehyde with rodanine. However, the experimental results of the synthesis which was based only on the use of rodanine were less satisfactory. For this reason it seemed expedient to the authors of this paper to investigate the possibility of the synthesis of the β -(2-tienyl) alanine according to the method of Sasaki. The experiments carried out by the authors showed that the method of the synthesis of β -(2-tienyl) alanine with the aid of diketopiperazine is comparatively simple: in any case it is more useful than the hitherto published methods. There are 8 references.

Card 1/2

On the Synthesis of the β -(2-thienyl) Alanine

62-1-17/29

ASSOCIATION: Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR
(Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: July 12, 1957

AVAILABLE: Library of Congress

1. β -(2-Thienyl) alanine-Synthesis 2. Alanines-Synthesis

Card 2/2

SHALAVINA, I. F.

79-1-45/63

AUTHORS:

Gol'dfarb, Ya. I. , Fabrichnyy, B. F. , Shalavina, I. F.

TITLE:

The Synthesis of Amino Acids of the Aliphatic Series From Thiophene Derivatives (Sintez aminokislot alifaticheskogo ryada iz proizvodnykh tiofena) II. The Synthesis of β -Amino Acids (II. Sintez β -Aminokislot)

PERIODICAL:

Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 213-222 (USSR)

ABSTRACT:

In recent years new data were published in periodicals on the investigation of β -amino acids, as biologically active compounds, of whom earlier little notice had been taken. Thiophene as initial product (references 4 and 5) began to play an important part. The way from thiophene and its homologues to amino acids is illustrated by the formulae (I), (II) and (III). The second stage of this process consists of the condensation of the aldehyde, which can easily be produced, with malonic acid and ammonia to β -amino acid according to V. M. Rodionov. The final stage is brought about by the reducing desulphurization with the aid of nickel. The

Card 1/3

79-1-45/63

The Synthesis of Amino Acids of the Aliphatic Series From Thiophene Derivatives. II. The Synthesis of β -Amino Acids

given synthesis of β -amino acids contains all possibilities which were characterized by the authors in papers devoted to the methods of synthesis of amino acids of another type. From the above-mentioned scheme follows that the acid of a ramified structure must form when ever the substituent or the aldehyde group are in positions 3 and 4, or when the substituent in position 5 has a ramified structure. Thus the following compounds were obtained from the corresponding 2-thiophene-aldehydes according to Rodionov's method: β -(2-thienyl)- β -aminopropionic, β -(5-methyl-2-thienyl)- β -aminopropionic, β -(5-ethyl-2-thienyl)- β -aminopropionic and β -(5-tert-butyl-2-thienyl)- β -aminopropionic acid. By the hydrogenolysis of these amino acids of the thiophene series the authors synthesized β -amino-n-heptyl-, β -amino-n-capronic, β -amino-n-pelargonic acid. By hydrogenolysis of the acetyl derivatives of β -(5-ethyl-2-thienyl)- β -aminopropionic and β -(5-tert-butyl-2-thienyl)- β -aminopropionic acid the acetyl derivatives of β -amino-n-pelargonic and θ , θ -dimethyl-amino-n-pelargonic acid respectively are obtained. By saponification of the acetyl derivative of θ , θ -dimethyl- β -aminopelargonic acid

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The Synthesis of Amino Acids of the Aliphatic Series From Thiophene Derivatives. II. The Synthesis of β -Amino Acids

with hydrochloric acid the hydrochloride of β , β -dimethyl- β -aminopropionic acid was obtained; by neutralization free amino acid was liberated. There are 19 references, 10 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry AN USSR
(Institut organicheskoy khimii Akademii nauk SSSR)

SUBMITTED: December 15, 1956

AVAILABLE: Library of Congress

Card 3/3

1. Chemistry
2. Amino acids-Synthesis
3. Aliphatic compounds
4. Thiophene

FABRICHNYI, B.P.; SHALAVINA, I.P.; GOL'DFARB, Ya.L.

Synthesis of aliphatic amino acids from thiophene derivatives.
Part 3: Synthesis of ω -amino acids. Zhur.ob.khim. 28 no.9:
2520-2530 S '58. (MIRA 11:11)

1. Institut organicheskoy khimii AN SSSR.
(Amino acids)

5 (3)
AUTHORS:

Gol'dfarb, Ya. L., Fabrichnyy, B. P., SOV/79-29-3-30/61
Shalavina, I. F.

TITLE:

Synthesis of the Aliphatic Amino Acids From the Thiophene Derivatives (Sintez alifaticheskikh aminokislot iz proizvodnykh tiofena). IV. 5-Acyl-(2-thienyl)-alkanic Acids as Initial Products for the Synthesis of the Aliphatic Amino Acids (IV. 5-Atsil(2-tiyenil)-alkanovyye kisloty kak iskhodnyye veshchestva dlya polucheniya alifaticheskikh aminokislot)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 891-897 (USSR)

ABSTRACT:

There are comparatively little data available on the highest aliphatic amino acids of the structure $RCH(NH_2)(CH_2)_nCOOH$, where R = alkyl, although they are interesting as polycondensation objects (Ref 1) or as derivatives for physiological investigations (Ref 2). Their general method of synthesis is so far unknown; for the synthesis of some of these amino acids natural products were used; thus, for instance, the 10-amino-undecanic acid (Refs 1,2) was obtained from

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undecylenic acid which is formed on the pyrogenetic cleavage of castor oil. The method previously suggested by the authors which is based on the reductive desulfurization (hydrogenolysis) of the oximino and amino acids of the thiophene series (Refs 3-8) yields aliphatic amino acids of any kind. The thiophene-keto acids previously used by the authors permit only the synthesis of such amino acids in which the carbon atom, as carrier of the amino group, is combined with an alkyl which contains not less than 4 carbons. This restriction was partly removed with the oximes of the aldehyde acids as initial products (Ref 8). In the present paper the synthesis of the highest amino acids of the mentioned type from the oximes of the keto acid (II) according to the given scheme is described. In this way the highest aliphatic amino acids can be synthesized which have the amino group in the required position to the carboxyl and an alkyl radical at the carbon atom combined with the amino group, with the necessary number of carbon atoms. The experimental part gives details on the carrying out of the reaction scheme mentioned. By the

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Synthesis of the Aliphatic Amino Acids From the Thiophene Derivatives. IV. 5-Acyl-(2-thienyl)-alkanoic Acids as Initial Products for the Synthesis of the Aliphatic Amino Acids SOV/79-29-3-30/61

hydrogenolysis of the oximes which were obtained from the thiophene keto acids the following acids were synthesized by means of the skeleton-nickel catalyst: The 10-amino undecanoic, 11-aminolauric, 9-amino undecanoic, and 11-amino tridecanoic acid. There are 3 tables and 8 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: January 20, 1958

Card 3/3

5 (3)
 AUTHORS: Gol'dfarb, Ya. L., Polonskaya, M. M., SOV/20-126-1-23/62
 Fabrichnyy, B. P., Shalavina, V. F.
 TITLE: Reductive Acetylation of Thiophene Series Nitrocompounds in the
 Presence of Skeleton Nickel (Vosstanovitel'noye atsetilirovaniye
 nitrosoyedineniy ryada tiofena v prisutsvii skeletnego nikelya)
 PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 86 - 89
 (USSR)
 ABSTRACT: The first and the third author proved earlier (Ref 1) that δ -
 -amino-valeric acid is produced with a small yield by the ef-
 fect of skeleton nickel (Ni_{sk}) on the 5-nitro-2-thiophene-car-
 boxylic acid (I). On the strength of reference 2 the authors
 tried to increase this yield by the application of acetic acid
 anhydride as medium. However, they succeeded only in isolating
 the acetyl-amino acid (II) from the reaction mixture. The re-
 cognition that this acid produces (III) in the case of the ef-
 fect of Ni_{sk} in the aqueous medium (Ref 3) led to the conclusion
 that the acetic acid anhydride deactivates Ni_{sk} . This conclusion
 was confirmed in the case of two other examples. Thus the react-

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Reductive Acetylation of Thiophene Series Nitro-
compounds in the Presence of Skeleton Nickel

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ion of Ni_{sk} with thiophene-nitroderivatives remains under the mentioned conditions in the production stage of an acetyl-amino compound. That is to say, the result of the process is a reductive acetylation. Although the effect of the solvent upon the reducing properties of Ni_{sk} in the case of the hydrogenation of the thiophene derivatives has already been published (Ref 4) the authors could not find data concerning the capacity of the acetic acid of suppressing the desulfurizing function of Ni_{sk} in such cases. The authors found contradictions in the publications concerning the properties of the 5-acetyl-amino-2-thiophene-carboxylic acid (II) (Refs 6-11) when they identified the latter. Since the melting point $230-232^{\circ}$ of the acetyl-amino acid (with a II-structure as is assumed) produced by the authors did not agree with that of the publications (272°) they determined the position of the acetyl-amino group in the nucleus. Thus the structure II was confirmed. On the strength of these data the authors doubted whether the experi-

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mental results of reference 8 were right. The authors then repeated the experiment of reference 8 and obtained acid potassium tartarate with a melting point $273-274^{\circ}$. The authors assume that Campaigne and Archer (Ref 8) erroneously regarded this acid salt as the acetyl-amino acid (II). There are 18 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskoy of the Academy of Sciences, USSR)

PRESENTED: February 25, 1959, by B. A. Kazanskiy, Academician

SUBMITTED: February 16, 1959

Card 3/3

FABRICHNYI, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya. L.

Beckmann rearrangement of thiophenocycloalkanone oximes.
Zhur. ob. khim. 31 no.4:1244-1253 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii Akademii nauk SSSR imeni N. D.
Zelinskogo.

(Oximes) (Cyclohexanone)(Cycloheptanone)
(Beckmann rearrangement)

GOL'DFARB, Ya.L.; FABRICHNYY, B.P.; SHALAVINA, I.F.

Synthesis of aliphatic amino acids from thiophene derivatives.
Part 6: Preparation of ϵ - and γ -amino acids and C-substituted
lactams. Zhur.ob.khim. 31 no.6:2057-2064 Je '61. (MIRA 14:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Amino acids) (Lactams)

S/190/62/004/012/008/015
B101/B186

AUTHORS: Volokhina, A. V., Fabrichnyy, B. P., Shalavina, I. F.,
Gol'dfarb, Ya. L.

TITLE: Polymerization of C-ethyl and C-propyl substituted
enanthalactams

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 12, 1962,
1829-1832

TEXT: The susceptibility of ϵ -ethyl- ϵ -enanthalactam and of ϵ -n-propyl- ϵ -enanthalactam to polymerization was investigated. Synthesis: The lactam of δ -(3-aminothienyl-2)-valeric acid, or the lactam of δ -(3-amino-5-methylthienyl-2)-valeric acid was obtained from 2',3'-thiopheno-1,2-cycloheptan-3-one oxime or from 5'-methyl-2',3'-thiopheno-1,2-cycloheptan-3-one oxime by Beckmann rearrangement in the presence of benzene sulfochloride. At the same time the sulfur was eliminated with skeleton nickel, and the double bonds of the thiophene ring were hydrogenated. The polymerization was carried out at 220-280°C with 2% H₂O as catalyst in N₂ atmosphere.

Solid, glass-like substances with m.p. 170°C were obtained, which can be
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Polymerization of C-ethyl and...

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B101/B186

pulled out to filaments at 175°C and from the hot alcoholic solution of which films can be formed. The polymer yield was more than 99%, the intrinsic viscosity reached 0.50 for the ethyl derivative, and 0.30 for the propyl derivative. Conclusion: In contrast to the seven-membered caprolactam ring, the polymerization susceptibility of the eight-membered enantholactam ring is not affected by substituents.. There is 1 figure. The most important English-language reference is: H. K. Hall, J. Amer. Chem. Soc., 80, 6404, 1958.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute of Synthetic Fibers); Institut organicheskoy khimii im. N. D. Zelinskogo AN USSR (Institute of Organic Chemistry imeni N.D.Zelinskiy AS USSR)

SUBMITTED: July 7, 1961

Card 2/2

VOLOKHINA, A.V.; FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

Polymerization involving ethyl- and propyl-substituted
enanthalactams. Vysokom. soed. 4 no.12:1829-1832 D '62.
(MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
iskusstvennogo volokna i Institut organicheskoy khimii
imeni N.D. Zelinskogo AN SSSR.
(Azicinsonone) (Polymerization)